

APPENDIX A

P2/FINANCE

Version 2.2

PROJECT TITLE: Walk-In Multimedia Blast Booth (includes equipment, materials, and labor only)

PREPARED BY: Pollution Prevention Equipment Program (PPEP)

ORGANIZATION: NAWC Lakehurst

COMMENTS: The results provided in this cost analysis are representative of the data collected during the prototype period at NS Mayport. The actual savings realized will differ one site to another based upon throughput, usage, operator technique, etc.

P2/FINANCE

Pollution Prevention Financial Analysis
and Cost Evaluation System

Version 2.2
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Tellus Institute
Boston, MA

Content prepared by NAWC Lakehurst

PROJECT TITLE:		CAPITAL COSTS	
Walk-In Multimedia Blast Booth (includes equipment, materials, and labor only)			
A boxed cell contains user input			
Capital Costs	Cost	Totals	Ref. Notes:
Purchased Equipment			
Pauli Systems Blast Booth	198,798		
(includes training)			
Delivery	9,500		
Sales tax (resale certificate)	0		
		208,298	
Materials			
Media (included in operating cost)	0		
Filters for air dryer	918		
Calibration kits (paid by Pauli Systems)	0		
First nozzle	167		
Second nozzle	183		
Freight for filter/air dryer	155	1,423	
Utility Connections and New Utility Systems			
Free air pump	717		
Air dryer	4,285		
		5,002	
Site Preparation			
		0	
Construction/Installation			
		0	
Engineering/Contractor			
		0	

PROJECT TITLE: OPERATING COSTS					
Walk-In Multimedia Blast Booth (includes equipment, materials, and labor only)					
A boxed cell contains user input					
Enter costs as positive values; Enter savings/revenues as negative values					
CURRENT PROCESS			ALTERNATIVE PROCESS		
Item	Annual Cost (\$/year)	Total	Item	Annual Cost (\$/year)	Total
			Difference =(Curr.-Alt.)		
Direct Materials			Direct Materials		
Sand paper	8,400		Blast media (\$2.25/lb)	17,100	
		8,400			17,100
					-8,700
Waste Management (materials & labor)			Waste Management (materials & labor)		
Disposal (\$0.80/lb.)	960		Leasing (\$0.50/lb.)	3,800	
		960			3,800
					-2,840
Utilities			Utilities		
Electricity			Electricity		
Steam			Steam		
Water			Water		
Sewerage			Sewerage		
		0			0
					0
Direct Labor			Direct Labor		
840 manhours	128,822		271.5 manhours	19,993	
(@ \$12.78/hr)			(@ \$18.41/hr)		
		128,822			19,993
					108,829
Other			Other		
		0			0
					0
Regulatory Compliance (materials & labor)			Regulatory Compliance (materials & labor)		
Manifesting			Manifesting		
Reporting			Reporting		
Monitoring			Monitoring		
Testing			Testing		
Labeling			Labeling		
Permitting			Permitting		
Training			Training		
		0			0
					0
Insurance			Insurance		
		0			0
					0
Revenues - Sale of Product			Revenues - Sale of Product		
		0			0
					0
Revenues - Marketable By-products			Revenues - Marketable By-products		
		0			0
					0
Total		138,182	Total		40,893
					97,289

PROJECT TITLE:					
Walk-In Multimedia Blast Booth (includes equipment, materials, and labor only)					
CAPITAL AND OPERATING COST SUMMARY					
NOTE: on this page, a boxed cell contains user input - default values are for illustration only.		NOTE: all entries shown as percentages must be entered as decimal numbers EXAMPLE: enter 0.4 for 40%			
Capital Costs	\$	Operating Costs	Current	Alternative	Difference (Curr.-Alt.)
Purchased Equipment	208,298	Direct Materials	8,400	17,100	-8,700
Materials	1,423	Waste Management	960	3,800	-2,840
Utility Connections	5,002	Utilities	0	0	0
Site Preparation	0	Direct Labor	128,822	19,993	108,829
Installation	0	Other	0	0	0
Engineering/Contractor	0	Regulatory Compliance	0	0	0
Start-up/Training	0	Insurance	0	0	0
Contingency	0	Maintenance, % Capital			
Permitting	0	Labor, %	0%	0	0
Initial Catalysts/Chemicals	0	Materials, %	0%	0	0
Depreciable Capital	214,722	Overhead, % Total Labor	0%	0	0
Working Capital	0	Labor Burden	0%	0	0
Total Capital Requirement	214,722	% Total Labor			
Salvage Value	0	Revenues - Sale of Product	0	0	0
Depreciation Period, years	7	Revenues - Marketable By-Products	0	0	0
Operating Period, years	20				
Income Tax Rate, %	0%				
Escalation Rate, %	5.0%	TOTAL	138,182	40,893	97,289
Cost of Capital, % (Discount Rate)	10.00%	Future Liability	Ref.	Year Expected	Cost (Curr.-Alt.)
		(Year expected =1,2,3,etc.)			

PROJECT TITLE:

Walk-In Multimedia Blast Booth (includes equipment, materials, and labor only)

PROFITABILITY ANALYSIS SUMMARY

	Years 1-5	Years 1-10	Years 1-15
Net Present Value (\$)	209,276	545,281	811,556
Internal Rate of Return	42%	51%	52%
Payback (years)	2.2		

	Year 1-Year of Choice	
	Year of Choice =	<input type="text" value="13"/>
Net Present Value (\$)		712,413
Internal Rate of Return		52%

APPENDIX B

P2/FINANCE

Version 2.2

PROJECT TITLE: Walk-In Multimedia Blast Booth (includes site preparation costs)

PREPARED BY: Pollution Prevention Equipment Program (PPEP)

ORGANIZATION: NAWC Lakehurst

COMMENTS: The results provided in this cost analysis are representative of the data collected during the prototype period at NS Mayport. The actual savings realized will differ one site to another based upon throughput, usage, operator technique, etc.

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PROJECT TITLE: OPERATING COSTS					
Walk-In Multimedia Blast Booth (includes site preparation costs)					
A boxed cell contains user input					
Enter costs as positive values; Enter savings/revenues as negative values					
CURRENT PROCESS			ALTERNATIVE PROCESS		Difference =(Curr.-Alt.)
Item	Annual Cost (\$/year)	Total	Item	Annual Cost (\$/year)	
Direct Materials			Direct Materials		
Sand paper	8,400		Blast media (\$2.25/lb)	17,100	
		8,400			17,100
					-8,700
Waste Management (materials & labor)			Waste Management (materials & labor)		
Disposal (\$0.80/lb.)	960		Leasing (\$0.50/lb.)	3,800	
		960			3,800
					-2,840
Utilities			Utilities		
Electricity			Electricity		
Steam			Steam		
Water			Water		
Sewerage			Sewerage		
		0			0
					0
Direct Labor			Direct Labor		
840 manhours	128,822		271.5 manhours	19,993	
(@ \$12.78/hr)			(@ \$18.41/hr)		
		128,822			19,993
					108,829
Other			Other		
		0			0
					0
Regulatory Compliance (materials & labor)			Regulatory Compliance (materials & labor)		
Manifesting			Manifesting		
Reporting			Reporting		
Monitoring			Monitoring		
Testing			Testing		
Labeling			Labeling		
Permitting			Permitting		
Training			Training		
		0			0
					0
Insurance			Insurance		
		0			0
					0
Revenues - Sale of Product			Revenues - Sale of Product		
		0			0
					0
Revenues - Marketable By-products			Revenues - Marketable By-products		
		0			0
					0
Total			Total		
		138,182			40,893
					97,289

PROJECT TITLE:

Walk-In Multimedia Blast Booth (includes site preparation costs)

CAPITAL AND OPERATING COST SUMMARY

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NOTE: all entries shown as percentages must be entered as decimal numbers
EXAMPLE: enter 0.4 for 40%

Capital Costs	\$	Operating Costs	Current	Alternative	Difference (Curr.-Alt.)
Purchased Equipment	208,298	Direct Materials	8,400	17,100	-8,700
Materials	1,423	Waste Management	960	3,800	-2,840
Utility Connections	35,802	Utilities	0	0	0
Site Preparation	7,000	Direct Labor	128,822	19,993	108,829
Installation	0	Other	0	0	0
Engineering/Contractor	0	Regulatory Compliance	0	0	0
Start-up/Training	0	Insurance	0	0	0
Contingency	0				
Permitting	0	Maintenance, % Capital			
Initial Catalysts/Chemicals	0	Labor, %	0%	0	0
		Materials, %	0%	0	0
Depreciable Capital	252,522				
Working Capital	0	Overhead, % Total Labor	0%	0	0
Total Capital Requirement	252,522	Labor Burden	0%	0	0
Salvage Value	0	% Total Labor			
Depreciation Period, years	7	Revenues - Sale of Product	0	0	0
Operating Period, years	20	Revenues - Marketable	0	0	0
Income Tax Rate, %	0%	By-Products			
Escalation Rate, %	5.0%				
		TOTAL	138,182	40,893	97,289
Cost of Capital, %	10.00%				
(Discount Rate)					
		Future Liability	Ref.	Year Expected	Cost (Curr.-Alt.)
		(Year expected			
		=1,2,3,etc.)			

PROJECT TITLE:

Walk-In Multimedia Blast Booth (includes site preparation costs)

PROFITABILITY ANALYSIS SUMMARY

	Years 1-5	Years 1-10	Years 1-15
Net Present Value (\$)	171,476	507,481	773,756
Internal Rate of Return	33%	44%	45%
Payback (years)	2.6		

	Year 1-Year of Choice	
	Year of Choice =	<input type="text" value="13"/>
Net Present Value (\$)		674,613
Internal Rate of Return		45%

